



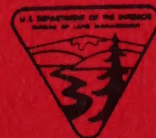
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NOVEMBER 1983

DRAFT AMENDMENT/ ENVIRONMENTAL ASSESSMENT TO THE CHACO MANAGEMENT FRAMEWORK PLAN: MC KINLEY COUNTY COAL EXCHANGE PROPOSAL



**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE**



HD
242.3
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1983



United States Department of the Interior

1610 (011)

BUREAU OF LAND MANAGEMENT

505 Marquette Avenue N.W., Suite 815

P. O. Box 6770

Albuquerque, New Mexico 87107

NOV 28 1983

Dear Public Land User:

Enclosed is the Draft Amendment/Environmental Assessment to the Chaco Management Framework Plan: McKinley County Coal Exchange Proposal for your review. This document evaluates the land-use planning and environmental impacts of exchanging some acreage of federal coal for coal owned by the Santa Fe Pacific Railroad Company, and transferring 160 acres of BLM-administered surface out of federal administration. Also assessed is the coal that would come into federal ownership for its suitability for further leasing consideration in the BLM's coal management program.

The 30-day public comment period begins on November 28, 1983, and will end on December 28, 1983. Written comments can be mailed or submitted in person to:

L. Paul Applegate, District Manager
Bureau of Land Management, Albuquerque District
P.O. Box 6770
Albuquerque, New Mexico 87107

The opportunity for comment will also be given at two public meetings to be held on Tuesday, December 20, 1983, at the BLM office at 505 Marquette Avenue, NW (Western Bank Building). The meetings will be held in Room 712 at 10:00 a.m. and 7:00 p.m.

Comments must be received by the close of business on December 28 (Wednesday) to be considered in the preparation of the final amendment. Response to comments will be included in the final document.

For further information contact: Betty Sladek
Bureau of Land Management
Albuquerque District
P.O. Box 6770
Albuquerque, New Mexico 87107
Telephone: Commercial - (505) 766-2455
FTS - (505) 474-2455

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Sincerely yours,

Charles W. Luscher
Charles W. Luscher
State Director

Enclosure

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AMENDMENT/ENVIRONMENTAL ASSESSMENT
TO THE
CHACO MANAGEMENT FRAMEWORK PLAN:
MCKINLEY COUNTY COAL EXCHANGE PROPOSAL
MCKINLEY COUNTY, NEW MEXICO

Prepared by

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Albuquerque District Office
P.O. Box 6770
Albuquerque, NM 87107

November, 1983

Contact: Betty Sladek, Team Leader
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AMENDMENT/ENVIRONMENT ASSESSMENT TO THE CHACO MANAGEMENT FRAMEWORK PLAN:
MCKINLEY COUNTY COAL EXCHANGE PROPOSAL

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CHAPTER 1

INTRODUCTION

PURPOSE OF AND NEED FOR AMENDMENT

In August of 1982, the Santa Fe Pacific Railroad Company (Santa Fe Pacific) proposed to exchange some of their checkerboard private coal in McKinley County, New Mexico, for checkerboard Bureau of Land Management (BLM) federal coal. (As shown on Maps 1 and 2, the private coal occurs in alternating sections with the federal coal in a "checkerboard" pattern.) This proposal includes the exchange of only the coal portion of the subsurface (mineral) estate, and would not substantially affect the surface ownership. The exception would be a 160-acre parcel in the Lee Ranch West Tract (T. 15 N., R. 8 W., Sec. 14: SE1/4), which has been proposed for transfer of both the coal interests and the surface. Both surface and coal of this parcel would pass from BLM administration to the Santa Fe Pacific Railroad Company if the exchange is consummated. (Refer to Maps 1 and 2 for general location and site-specific information.)

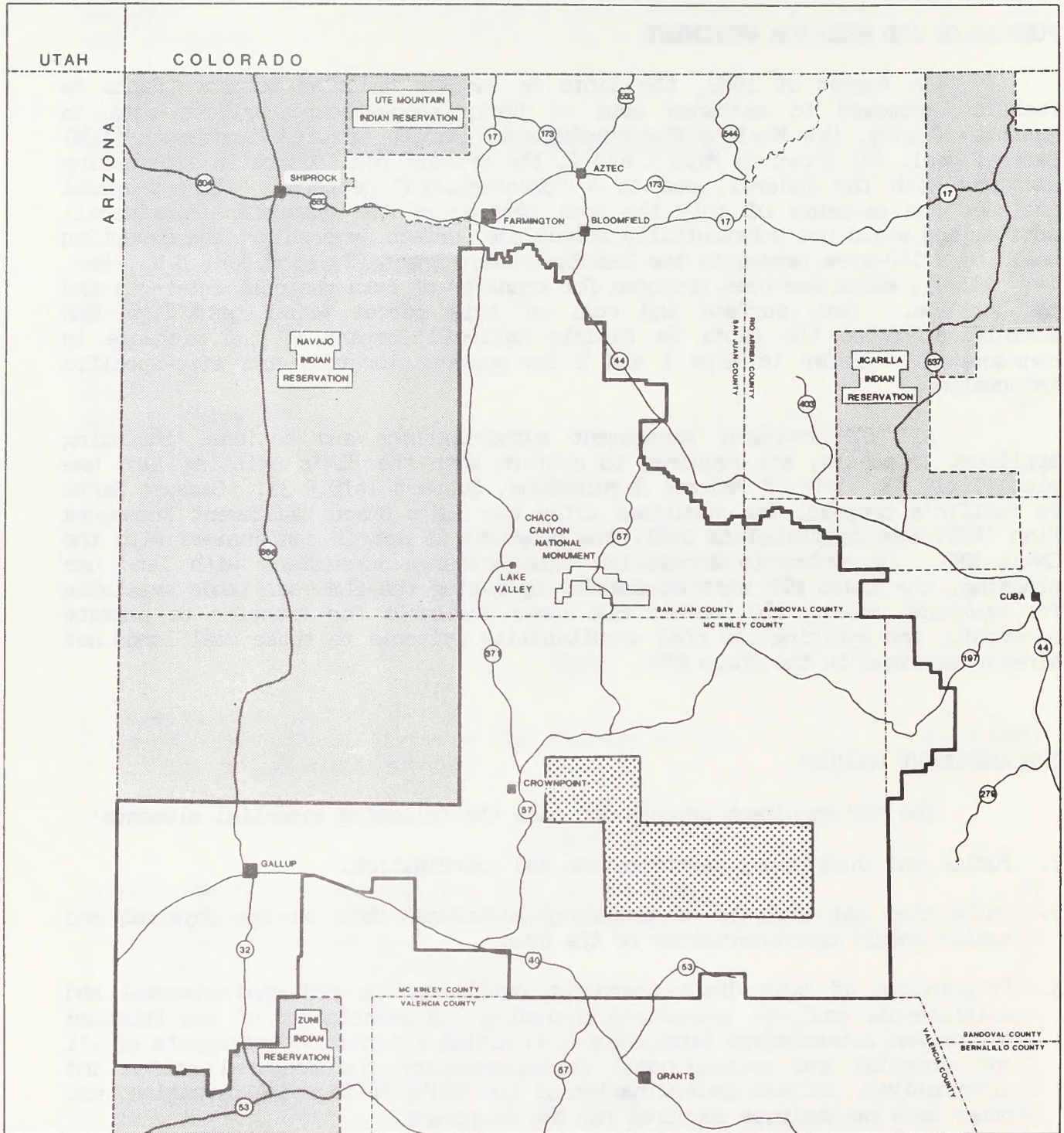
All BLM resource management authorizations and actions, including applicant proposals, are required to conform with the BLM's existing land use plan (Title 43, Code of Federal Regulations, Subpart 1610.5-3). Because Santa Fe Pacific's proposal was submitted after the BLM's Chaco Management Framework Plan (MFP) was completed in 1981, the proposal is not in conformance with the Chaco MFP. In order to accomplish this exchange consistent with land use planning, the Chaco MFP must be amended by making the BLM coal lands available for exchange, making 160 surface BLM acres available for transfer to private ownership, and applying the coal unsuitability criteria to those coal lands not already assessed in the Chaco MFP.

THE AMENDMENT PROCESS

The MFP amendment process includes the following essential elements:

1. Public and interagency participation and coordination.
2. Collection and analysis of necessary additional data on the physical and socioeconomic characteristics of the area.
3. Preparation of this draft amendment outlining the BLM environmental and multiple-use analysis procedures including: a description of the Proposed Action and alternatives (including a No Action Alternative); analysis of all environmental and socioeconomic consequences of the Proposed Action and alternatives; initial determination of the BLM's Preferred Alternative; and other data or analyses required for the amendment.
4. A 30-day public comment period on this draft amendment.
5. Preparation of the final amendment, including responses to comments and document revisions, as needed.
6. The recommendation of the proposed plan amendment by the Albuquerque District Manager to the New Mexico State Director. If the State Director

CHACO PLANNING UNIT



MAP 2 AREA

19 miles



MAP 1 - GENERAL LOCATION

approves, a public notice of the amendment decision will be published, explaining how the existing Chaco MFP will be amended.

7. Receipt of protests by the BLM Director for 30 days following the publication of the State Director's decision. Protests will be filed in accordance with Section 43 of the Code of Federal Regulations (CFR), Subpart 1610.5-2. Protests will be answered by mail with the final decision of the Department of the Interior.
8. The Governor of New Mexico's 60-day consistency review period overlapping with the protest period. If inconsistencies are found between this amendment and state or local plans, policies, or programs, the Governor may recommend changes to the amendment. Any of the recommended changes not raised during the public participation process will be made available to the public for review. If any recommended changes are not incorporated into the amendment, the Governor will have 30 days to appeal in writing to the Director, who will publish the BLM's response in the Federal Register [43 CFR 1610.3-2(e)].
9. Implementation of the amendment decision only after any public protests and the Governor's recommendations are resolved. The administrative actions required to implement the amendment decision are discussed in Chapter 6.

Suitability Assessment

As a part of the BLM's land use planning, regulations pertaining to federal coal leasing [Title 43 Code of Federal Regulations, 3420.1-4(e)] also require that a suitability assessment be conducted. All federal coal lands with development potential that are to be carried forward from land use planning into actual lease consideration must be found suitable for this lease consideration.

Three screening procedures are used in the suitability analysis in this amendment. The first is the surface owner consultation process, whereby qualified surface owners whose lands overlie federal coal deposits may express a preference for or against surface mining. Lands may be found unsuitable for further consideration for leasing if a significant number of owners have expressed a preference against coal mining by surface methods.

The second screening procedure involves multiple-use considerations that may result in land being found unsuitable because of special resource conditions. For example, a paleontology site significant because of its in-place value as an educational or research tool may be preserved by determining its location unsuitable for mining.

The final screening procedure is the application of 20 unsuitability criteria (and related exemptions and exceptions) that are part of the BLM's coal management program. These criteria are included in Appendix 2, and their application to the exchange lands is discussed in Chapter 4. (Definitions of the terms used in this chapter can be found in the Glossary.)

Any coal lands found unsuitable during these procedures would not be considered further for possible competitive leasing, unless reanalyzed and found suitable as the result of a change in circumstances.

CHAPTER 2

PLANNING ISSUES AND CRITERIA

PLANNING ISSUES

Amending a Management Framework Plan includes focusing the data collection, analysis, and decision-making on only those resource issues that must be addressed. These issues are consolidated from BLM resource needs, public input, and appropriate requirements of law, regulation, and policy.

As the result of public input during initial discussions on this amendment, several issues have been raised. Chapter 7 contains a more specific listing of these issues as expressed by the public and various governmental agencies.

The issues addressed in this amendment include:

1. The impacts of designating certain areas as suitable for further consideration for coal leasing.
2. The impacts that transfer of the coal interests out of federal ownership would have, as well as the transfer of Santa Fe Pacific coal interests into federal ownership, and the impacts of transferring 160 surface acres out of federal ownership.

PLANNING CRITERIA

The analysis and decisions for this amendment are based on the planning criteria presented below. These criteria have been derived from land use planning and coal development requirements, multiple use considerations, environmental and socioeconomic considerations, and public involvement.

1. Coordination of the Proposed Action and all alternatives with the land use plans, programs, issues and concerns of other federal, state, and local governmental agencies and Indian tribes (Chapter 7);
2. Application of the unsuitability criteria [43 CFR 3420.1-4(e) and 3461] to portions of the Santa Fe Pacific coal. [These criteria were applied to the BLM coal involved in the exchange in the second Draft San Juan River Regional Coal EIS (USDI, BLM 1983).] This application will determine this coal's suitability for further leasing consideration (Chapter 4);
3. Identification, analysis, and resolution of conflicts between the Proposed Action (exchange and suitability determination) and the Chaco MFP's land use decisions (USDI, BLM, 1981a) (Chapter 5);
4. Initiation of surface owner consultation procedures [Section 714 of the Surface Mining Control and Reclamation Act of 1977 and 43 CFR 3420.1-4(e)]. Preliminary determinations will be made of qualified surface owners and their consent or refusal to consent to the leasing and development of coal (Chapter 4);

5. The identification and analysis of values and resources that could be impacted by the Proposed Action and alternatives [43 CFR 3420.1-4(e)] (Chapter 5);
6. The results of public participation in the development of this planning amendment (Chapter 7);
7. A determination that the exchange of BLM coal for Santa Fe Pacific coal and the transfer of 160 surface acres out of federal ownership are in the public interest (43 CFR 2200; and the Federal Land Policy and Management Act of 1976, Section 206).

CHAPTER 3

THE PROPOSED ACTION AND ALTERNATIVES

Three levels of exchange are analyzed in this amendment. The analysis of the full exchange (Proposed Action), two partial exchange levels, and the No Action Alternative allows for comparison of impacts at all reasonable levels. For negotiation purposes, the BLM's Albuquerque District Manager and State Director have the option of selecting actual coal tonnage and acreage figures that fall between the Proposed Action and the No Action Alternative.

PROPOSED ACTION

In order for the BLM to make lands available for exchange, transfer, and coal leasing, the September 1981 Chaco Management Framework Plan (MFP) must be amended in two ways. A new decision regarding land use would be added to the lands portion of the Chaco MFP (refer to Appendix 1A) and would make approximately 7,500 acres of BLM coal available for exchange for approximately 12,300 acres of Santa Fe Pacific coal. This decision would also make 160 acres of surface (located in T. 15 N., R. 8 W., Section 14: SE1/4) available for transfer out of federal ownership.

The BLM coal being analyzed for exchange is located in alternate sections (referred to as a "checkerboard" pattern) of two federal competitive coal lease tracts (Lee Ranch Middle and Lee Ranch West) analyzed in the Second Draft San Juan River Regional Coal Environmental Impact Statement (USDI, BLM 1983). (Refer to the Glossary for a definition of "tract", and to Map 2 for the location of the lands involved in this proposal.) The Santa Fe Pacific coal is owned by the Santa Fe Pacific Railroad Company, and is also located in a checkerboard pattern.

Approximately 7,150 acres of the Santa Fe Pacific coal land lie within four federal competitive coal lease tracts analyzed in the Second Draft San Juan River Regional Coal EIS (Lee Ranch East, Lee Ranch Middle, Lee Ranch West, and Divide). These lands are suitable for further consideration for leasing, but are not available for exchange. This amendment would make them available for exchange.

Approximately 5,150 acres of the Santa Fe Pacific coal land are located outside of all competitive coal lease tract boundaries, but are near or adjacent to the Divide and Crownpoint East tracts. For identification and discussion purposes in this planning amendment, the seven sections located immediately north of the Crownpoint East Tract and one section located 1 1/2 miles west of the Divide Tract have been given the names "Navajo Ranch Acreage" and "Divide West Acreage," respectively (refer to Map 2). This MFP amendment would make these lands available for exchange, as the existing Chaco MFP does not include them. (Table 1 gives acreage, tract name and ownership information, and Appendices 3 and 4 show legal descriptions, acreage, and mineral/surface ownership.)

It should be noted that any coal exchange would be done on the basis of equal coal values, not on an acre-for-acre basis. Any reference to acreage in this document, therefore, is made only to help identify areas being considered for exchange.

TABLE 1

COAL OWNERSHIP, ACREAGE, TRACT AND SUITABILITY STATUS
OF LANDS IN THE PROPOSED ACTION AND PARTIAL EXCHANGE ALTERNATIVES

Proposed Action			Partial Exchange Alternative 1			Partial Exchange Alternative 2					
Coal Owner	Acreage	Name	Leasing Suitability Covered by 1981 Chaco MFP (Minerals Decision M-1.1)	Coal Owner	Acreage	Name	Leasing Suitability Covered by 1981 Chaco MFP (Minerals Decision M-1.1)	Coal Owner	Acreage	Name	Leasing Suitability Covered by 1981 Chaco MFP (Minerals Decision M-1.1)
BLM	2,800.00	Lee Ranch West Tract (eastern portion)	Yes	BLM	2,400.00	Lee Ranch West Tract (eastern portion)	Yes	BLM	2,400.00	Lee Ranch West Tract (eastern portion)	Yes
	4,744.39	Lee Ranch Middle Tract	Yes						2,075.84	Lee Ranch Middle Tract (western portion)	Yes
TOTAL	7,544.39				2,400.00				4,475.84		
Santa Fe Pacific Railroad	3,320.92	Lee Ranch West Tract (western portion)	Yes	Santa Fe Pacific Railroad	3,320.92	Lee Ranch West Tract (western portion)	Yes	Santa Fe Pacific Railroad	3,320.92	Lee Ranch West Tract (western portion)	Yes
	3,021.4	Divide Tract	Yes						5,720.00	Lee Ranch Middle Tract	Yes
	808.78	Lee Ranch East Tract	Yes								
(Subtotal)	7,151.10										
	4,476.8	Navajo Ranch Acreage	No								
	669.8	Divide West Acreage	No								
(Subtotal)	5,146.6										
TOTAL	12,297.70				3,320.92				9,040.92		

The Proposed Action would also add the Navajo Ranch and Divide West acreages to Minerals Decision M-1.1 of the Chaco MFP. These lands would be included with the "Category B" lands described in the existing Chaco MFP (refer to Appendix 1B). These acres of Santa Fe Pacific coal were not included in the suitability assessment conducted for the 1981 Chaco MFP, but this amendment assesses their suitability for further consideration for coal leasing.

The proposal and analysis in this amendment apply only to the exchange of BLM and Santa Fe Pacific coal, to the transfer of 160 acres of surface estate out of federal ownership, and to the suitability determination of some of the Santa Fe Pacific coal. The remainder of the surface estate and all non-coal minerals would remain under present ownership.

The BLM is conducting detailed geologic and economic evaluations of existing drilling data. These evaluations will provide the information needed to determine BLM and Santa Fe Pacific coal values and will be incorporated into the final planning amendment. If the exchange is approved, negotiations between the BLM and the Santa Fe Pacific Railroad Company would be necessary to arrive at final tonnage and acreage figures.

Until these evaluations are completed, the BLM coal and Santa Fe Pacific coal are assumed to be approximately equal in value. The acreage difference (7,500 acres of BLM coal versus 12,300 Santa Fe Pacific acres) is based on seam thickness, coal bed dips, amount of overburden, and mining technology constraints. These tonnage and acreage figures were projected by representatives of Santa Fe Pacific Railroad Company from data obtained in their exploration program. (Refer to the Glossary for an explanation of the relationship of the Santa Fe Pacific Railroad Company to its affiliates.)

Chapter 6 ("Administrative Actions Required for Implementation") discusses the consequences of the various possible decisions, and steps necessary to implement them.

Purpose and Need for the McKinley County Coal Exchange Proposal

The coal exchange would consolidate the checkerboard BLM and Santa Fe Pacific coal into blocks. The first block would consist of BLM coal in the Lee Ranch East, Lee Ranch West (western portion) and Divide tracts. The second block would be Santa Fe Pacific Railroad Company's coal located in the Lee Ranch West (eastern portion) and Middle tracts.

This exchange would promote the orderly development of coal by allowing for a more logical and economical development of both the Santa Fe Pacific and BLM coal resources. Mining costs would be reduced on both blocks of land, and potential environmental impacts caused by inefficient mining practices would be lessened.

If any lessee(s) wanted to block up the existing checkerboard sections of BLM coal, they would have to negotiate and purchase adjacent sections of private coal. Consolidation of the BLM coal through the McKinley County exchange would eliminate the need for such negotiations. It is assumed that this elimination and the offering of solid blocks of BLM coal would create more interest and competition in the bidding on the Lee Ranch (East and West) and Divide tracts.

The proposed transfer of 160 acres of surface estate out of federal administration would simplify development of the coal by eliminating a split estate situation involving federal surface and federal surface management procedures in a logical mining unit where no other federal surface exists. The BLM's management responsibilities would be simplified if this parcel of surface estate were under other than federal administration during and after mining.

NO ACTION ALTERNATIVE

Under this alternative, no exchange would occur. BLM and Santa Fe Pacific coal resources would remain in a checkerboard pattern within the six tracts (Lee Ranch Middle, Lee Ranch West, Lee Ranch East, and Divide tracts; Divide West and Navajo Ranch acreages - refer to Map 2).

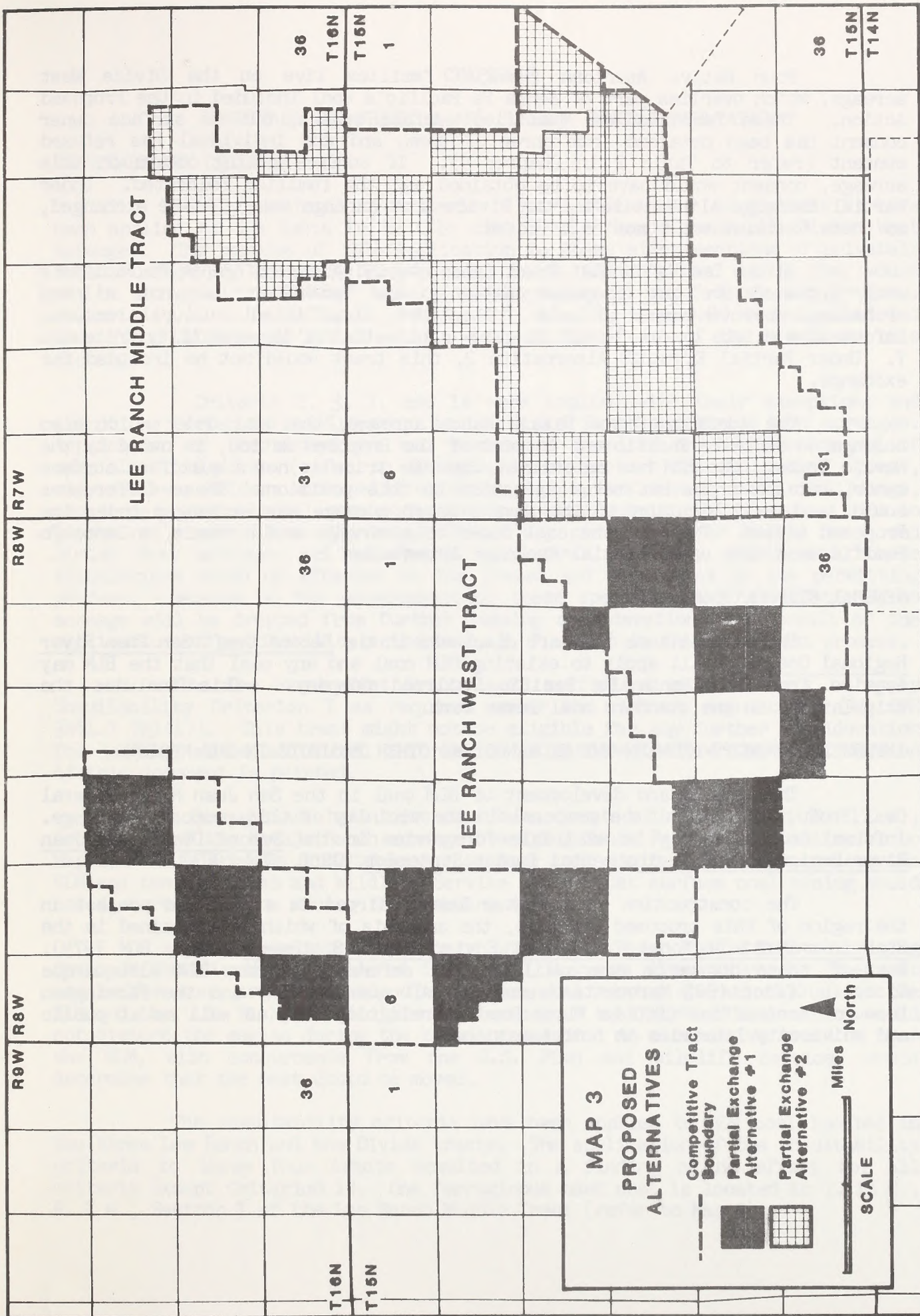
PARTIAL EXCHANGE ALTERNATIVE 1

This alternative involves the exchange of BLM coal underlying approximately 2,400 acres, located in a checkerboard pattern in the eastern portion of the Lee Ranch West Tract, for the Santa Fe Pacific private coal underlying approximately 3,300 acres, located in a checkerboard pattern in the western portion of the Lee Ranch West Tract. This alternative includes about 30 percent of the coal described in the Proposed Action. No transfer of surface estate is proposed. Map 3 and Appendices 5 and 6 show the BLM and Santa Fe Pacific coal being considered in this alternative. All Santa Fe Pacific coal involved in this alternative was included in the analysis made in the 1981 Chaco Minerals Decision M-1.1 and is considered suitable for further consideration for leasing.

PARTIAL EXCHANGE ALTERNATIVE 2

Approximately 66 percent of the total coal acreage proposed for exchange by the Santa Fe Railroad Company is included in this alternative. This alternative would make available for exchange the BLM coal underlying approximately 4,475 acres, located in a checkerboard pattern in the eastern portion of the Lee Ranch West Tract and the western portion of the Lee Ranch Middle Tract. The Santa Fe Pacific coal underlying approximately 9,040 acres and located in a checkerboard pattern in the western portion of the Lee Ranch West Tract and in the Lee Ranch Middle Tract would also be available for exchange, and 160 acres of BLM surface estate would be available for transfer. This alternative would not include the availability for exchange of BLM coal located in the Lee Ranch East or Divide tracts. The parcels involved in this alternative include some lands listed as part of the Proposed Action and Partial Exchange Alternative 1, and some lands that are being considered only in this alternative. Map 3 and Appendices 7 and 8 show the BLM and Santa Fe Pacific coal being considered in Partial Exchange Alternative 2. All Santa Fe Pacific coal acreage involved in this alternative was included in the blanket analysis made in the 1981 Chaco Minerals Decision M-1.1 and is considered suitable for further consideration for leasing.

After initial analysis and review of the Proposed Action and alternatives, the Albuquerque District Manager has chosen this alternative as the BLM's Preferred Alternative. This is a preliminary recommendation that can be altered at a later date after public review and input. Some of the reasoning behind this preliminary recommendation is given below.



Four Native American (Navajo) families live on the Divide West acreage, which overlies part of Santa Fe Pacific's coal included in the Proposed Action. These families are qualified surface owners, but no surface owner consent has been obtained from three of them, and one individual has refused consent (refer to Table 2 in Chapter 4). If surface mining occurs on this acreage, consent would have to be obtained and the families relocated. Under Partial Exchange Alternative 2, the Divide West acreage would not be exchanged, so these families would not be affected.

On the Lee Ranch East Tract (also overlying part of Santa Fe Pacific's coal included in the Proposed Action), the landowner has not allowed archeological inventories to occur. Therefore, insufficient cultural resource information exists on this tract to allow application of Unsuitability Criterion 7. Under Partial Exchange Alternative 2, this tract would not be included for exchange.

The surface of the Navajo Ranch acreage, the coal under which also belongs to Santa Fe Pacific and is part of the Proposed Action, is owned by the Navajo Tribe. The BLM has determined that the tribe is not a qualified surface owner, but the tribe has taken exception to this position. These differences could lead to litigation if the Navajo Ranch acreage was exchanged under the Proposed Action. However, the coal under this acreage would remain in Santa Fe Pacific ownership under Partial Exchange Alternative 2.

GENERAL STIPULATIONS

The stipulations that are discussed in the Second Draft San Juan River Regional Coal EIS will apply to existing BLM coal and any coal that the BLM may acquire from the Santa Fe Pacific Railroad Company. This includes the stipulations in the standard coal lease form.

INTERRELATIONSHIPS BETWEEN THE EXCHANGE AND OTHER PROJECTS IN THE REGION

The leasing and development of BLM coal in the San Juan River Federal Coal Production Region is a proposal in the vicinity of this proposed exchange. Information on leasing is available for review in the Second Draft San Juan River Regional Coal Environmental Impact Statement (USDI, BLM 1983).

The construction of the Star Lake Railroad is a proposed project in the region of this proposed exchange, the analysis of which is contained in the Star Lake-Bisti Regional Coal Final Environmental Statement (USDI, BLM 1979). Both of these documents are available for reference at the BLM Albuquerque District Office (505 Marquette Avenue NW, Albuquerque, NM) and the Farmington Resource Area Office (900 La Plata Road, Farmington, NM), as well as at public and university libraries in both locations.

CHAPTER 4

UNSUITABILITY CRITERIA AND SURFACE OWNER CONSULTATION

UNSUITABILITY CRITERIA

The 20 unsuitability criteria (43 CFR 3461--refer to Appendix 2) have been applied to the Santa Fe Pacific coal in the Navajo Ranch and Divide West acreages. The purpose of this application to these eight sections of privately owned surface and Santa Fe Pacific coal is to identify coal lands that would not be suitable for further leasing consideration in the federal coal program. Criteria 1, 4, 5, 6, 8, 9, 10, 12, 13, 15, 17, 18, 19 and 20 were applied and were found to have no effect on the suitability of any of the tracts in this exchange.

Criteria 2, 3, 7, and 16 were applied with their exceptions and exemptions (refer to the Glossary) to the Navajo Ranch and Divide West acreages. Application of the exceptions and exemptions resulted in the development of special stipulations (refer to Appendix 9) to protect the following: roads, rights-of-way holders with valid existing rights, residences, public buildings, cemeteries, and cultural resources; and to prevent substantial threat or loss to people or property from flooding. Should any portion of the Navajo Ranch and Divide West acreages be transferred to federal ownership and leased, these stipulations would be attached to the leases and considered in the permitting process. Because of the development of these specific lease stipulations, no acreage will be dropped from further leasing consideration as a result of the application of unsuitability criteria 2, 3, 7 and 16 in this amendment process.

The Lee Ranch East Tract lacks sufficient cultural data to apply Unsuitability Criterion 7 as required under the current regulations [43 CFR 3461.1 (g)(1)]. This tract might not be eligible for any further consideration for leasing unless additional information is gathered before the final version of this document is printed.

A ferruginous hawk nest has been located in T. 18 N., R. 11 W., Section 29 of the Navajo Ranch acreage overlying Santa Fe Pacific coal (refer to Map 2). This area is unsuitable for surface coal mining operations, unless the BLM and the U.S. Fish and Wildlife Service concur that surface coal mining would not disturb the birds during the breeding season.

A golden eagle nest was found on the Lee Ranch Middle Tract overlying Santa Fe Pacific coal considered in Partial Exchange Alternative 2. The nest and buffer zone are unsuitable for surface coal mining operations, unless the BLM and the U.S. Fish and Wildlife Service concur that surface coal mining would not disturb the eagles during the breeding season. An alternative would be that the BLM, with concurrence from the U.S. Fish and Wildlife Service, would determine that the nest could be moved.

The unsuitability criteria have been applied to BLM coal located in the three Lee Ranch and the Divide tracts. The application of the unsuitability criteria to these four tracts resulted in a finding of no effect for all criteria except Criterion 14. One ferruginous hawk nest is located in T. 15 N., R. 7 W., Section 7 of the Lee Ranch Middle Tract (refer to Map 2).

SURFACE OWNER CONSULTATION

The BLM has completed the formal surface owner consultation procedure. This procedure asked landowners and residents located on private lands overlying Santa Fe Pacific and BLM coal if they are in favor of coal mining. It also determined which surface owners and residents meet the requirements of 43 CFR 3400, and which owners are designated as qualified surface owners. The surface owner consent/refusal procedure has been explained to those individuals who initially appear to be qualified surface owners. (This action should in no way be interpreted as a process designed to solicit either consent or refusal to the development of surface mining activities.)

The results of surface owner consultation for acreages overlying Santa Fe Pacific coal are listed in Table 2. No consent has been filed for the Lee Ranch East Tract. On the Divide West acreage, three qualified surface owners have not filed any response, and one has filed a refusal to consent. Consent has been filed for the Lee Ranch Middle, and Lee Ranch West, and Divide tracts. The owner of the Navajo Ranch acreage, the Navajo Tribe, has been determined not to be a qualified surface owner under 43 CFR 3400.0-5(gg).

The consultation procedure for the surface owners and residents on the portions of the Lee Ranch Middle and Lee Ranch West tracts that overlie BLM coal has been completed. Approval has been granted by the qualified surface owners. This information is listed in Table 2 and a copy of the consent forms is on file at the BLM New Mexico State Office in Santa Fe.

TABLE 2

RESULTS OF SURFACE OWNER CONSULTATION PROCEDURE

Location	Surface Owner	43 CFR 3400.0-5(gg) Qualification Determination	Consent or Refusal Status	Legal Description	Included in Proposed Action (PA) Alternative 1 (A-1) or Alternative 2 (A-2)
<u>Santa Fe Coal</u>					
Lee Ranch East Tract	Michaels	Qualified	Consent not filed	Total owned in tract ^{a/}	PA
Lee Ranch West Tract	Fernandez Co.	Qualified	Approval granted	Total owned in tract ^{a/}	PA, A-1, A-2
Lee Ranch Middle Tract	Fernandez Co.	Qualified	Approval granted	Total owned in tract ^{a/}	A-2
Divide Tract	Fernandez Co.	Qualified	Approval granted	Total owned in tract ^{a/}	PA
	Albers	Qualified	Approval granted	Total owned in tract ^{a/}	PA
Divide West Acreage	F. Begay	Qualified	Consent not filed	Total owned in acreage ^{a/}	PA
	D. Chopo	Qualified	Consent not filed	Total owned in acreage ^{a/}	PA
	G. Chopo	Qualified	Consent not filed	Total owned in acreage ^{a/}	PA
	D. Sloan	Qualified	Refusal to consent	Total owned in acreage ^{a/}	PA
Navajo Ranch Acreage	Navajo Tribe	Not Qualified		Total owned in acreage ^{a/}	PA
<u>BLM Coal</u>					
Lee Ranch Middle	Fernandez Co.	Qualified	Approval granted	Total owned in tract ^{b/} _	PA, A-2
Lee Ranch West Tract	Federal		Not required	Total owned in tract ^{b/}	PA, A-1
	Fernandez Co.	Qualified	Approval granted	Total owned in tract ^{b/}	PA, A-1, A-2

Note: a/ Refer to Appendices 4, 6 and 8 for legal descriptions.
b/ Refer to Appendices 3, 5 and 7 for legal descriptions.

CHAPTER 5

IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES

STRUCTURE AND CONTENT OF THIS CHAPTER

Scope of Analysis

This chapter discusses only those impacts resulting directly from the Proposed Action and alternatives. The impacts analyzed are unavoidable, unmitigated impacts. The environmental impacts of mining the coal in a consolidated block would be essentially the same as those from mining the coal in a checkerboard pattern. It is assumed that coal mining would occur in the exchange area regardless of whether or not the exchange takes place, so the impacts identified in this document are primarily related to regulatory differences and some economic factors. Environmental impacts as a result of coal mining are not discussed in this document because they have been or will be analyzed in other BLM documents. Cumulative impacts are discussed in Chapter 3 of the Second Draft San Juan River Regional Coal EIS (1983), and site-specific impacts are discussed on pages A-13 through A-18 of this EIS. The impacts of mining on the Navajo Ranch and Divide West acreages would be analyzed in a separate regional coal EIS before these acreages could be offered for lease.

Irreversible and Irretrievable Commitments of Resources

No resources would be irreversibly or irretrievably committed by the exchange of coal or the transfer of 160 acres of federal surface into private ownership.

Affected Environment

Extensive resource information from the proposed exchange area has been presented in the site-specific analyses for the coal lease tracts (USDI, BLM 1982) and in the Second Draft San Juan River Regional Coal EIS (USDI, BLM 1983). These documents are incorporated into this amendment by reference to provide a discussion of the affected environment.

RELATIONSHIP TO THE CHACO MANAGEMENT FRAMEWORK PLAN (MFP)

The Proposed Action and alternatives include two basic recommendations. The first is a recommendation to make BLM coal available for exchange with Santa Fe Pacific coal, and some surface estate available for transfer of federal ownership. The second recommendation is to modify Minerals Decision M-1.1 of the Chaco MFP. This modification includes a multiple-use assessment of the leasing suitability of the Santa Fe Pacific coal in the Navajo Ranch and Divide West acreages that BLM would acquire under the Proposed Action.

No conflicts have been identified between the existing Chaco MFP decisions and any of the alternatives discussed in this amendment with regard to making the specified BLM coal acreage available for exchange with the specified Santa Fe Pacific coal.

No conflicts exist between coal mining on the acreage being considered in the modification of the Chaco MFP Minerals Decision M-1.1 and any of the Chaco MFP multiple-use decisions for the following resources: paleontology, water resources, range, wildlife, cultural resources, visual resources, wilderness, forestry, and recreation.

RESOURCE IMPACTS AS A RESULT OF REGULATORY DIFFERENCES

The conveyance of a patent and a warranty deed for BLM and Santa Fe Pacific coal, respectively, would not cause impacts in and of itself. However, some legal requirements of the State of New Mexico do not apply to all resources or afford the same level of protection to them as the federal requirements. Therefore, the transfer of coal to state control rather than federal legal and regulatory control could result in impacts, especially to cultural resources, threatened and endangered plants and animals, and paleontology.

1. The state's listing of endangered wildlife species (Groups I and II) includes the federal species that are being considered in this document. The state's sensitive plant listing must be considered in addition to the federal listing of threatened and endangered (T&E) plants. The authority for and management of wildlife species and habitat by the New Mexico Department of Game and Fish (NMDG&F) extends to private lands. However, no state laws or regulatory requirements provide the NMDG&F with a legal right to enforce protection and management programs on private lands. The state's regulatory requirements for surface mining (Rule 80-1) provide for studies and management plans to be developed and implemented for fish and wildlife. A transfer of federal coal resources to private ownership under the jurisdiction of the State of New Mexico could result in less protection and federal legal jurisdiction for T&E plant and animal species.

2. Legal requirements of the National Historic Preservation Act of 1966, as amended, direct federal agencies to exercise caution that properties that may qualify for inclusion into the National Register of Historic Places are not "inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly." This direction provides the basis for obtaining at least a Class III cultural resource inventory and a determination of the National Register eligibility of cultural resources found on lands underlain by federal coal prior to exchange. If cultural resources are found that qualify for the National Register only because they may yield information important in prehistory, the state's Cultural Properties Act and the surface coal mining regulations (Rule 80-1) will require data recovery prior to mining.

3. The federal regulatory requirements for considering and protecting paleontological resources are found in Section 202 (land use planning) of the Federal Land Policy and Management Act of 1976 and in the Antiquities Act (1906). A state mitigation plan ("Paleontological Mitigation Procedures for Surface Coal Mines on New Mexico Lands") has been developed. No state laws or legal requirements require federal and state lessees or private coal owners to implement this plan or request enforcement by the state. The transfer of coal resources would result in different regulatory requirements for paleontological resources.

UNAVOIDABLE ENVIRONMENTAL IMPACTS

No unavoidable environmental impacts would occur to the following resources as a result of the coal exchange and the transfer of 160 surface acres to private ownership: air quality, topography, mineral resources, paleontology, soils, reclamation potential, water resources (surface and underground), threatened and endangered plants and animals, cultural resources, visual resources, transportation, social factors, and American Indian concerns.

Economic Factors

Proposed Action

Under the Proposed Action to exchange coal interests, the BLM would have contiguous blocks of coal land to offer for lease. A contiguous block of coal would be more attractive to a potential lessee than the present checkerboard situation because it would allow more compact, efficient mining operations. The block would also be more likely to be leased more quickly than a checkerboard offering.

In addition to having the above impacts, the exchange would enhance recovery of the coal resource because fewer boundary pillars would be necessary. The BLM would receive more coal than it would relinquish, and the stripping ratio would be lower. Considering the contiguous block of coal available and the improved stripping ratio, it is likely the per-acre bonus bids received for any coal tracts offered would be larger than those received for the checkerboard coal the BLM now holds.

Partial Exchange Alternative 1

Under this proposal to exchange about 30 percent of the coal interests included in the Proposed Action, the BLM would receive approximately the same amount of coal as it relinquished. The coal received would have a lower stripping ratio than the relinquished coal. The BLM would also have a contiguous block of coal to offer. This contiguous block of coal would be more attractive because it could be mined more efficiently, as explained under the Proposed Action.

Partial Exchange Alternative 2

Under this alternative to exchange about 66 percent of the coal interests included in the Proposed Action, the BLM would receive less coal than it relinquished. However, the coal received would have a lower stripping ratio. The BLM would also be able to offer two contiguous coal tracts, which would be more attractive to industry than checkerboard tracts (for the reasons stated above under the Proposed Action).

Vegetation and Livestock Grazing

If the 160-acre parcel of surface estate is transferred out of federal ownership under the Proposed Action and Partial Exchange Alternative 2, management of livestock grazing and vegetation would be under private control. A total of 36 animal unit months (AUMs) permitted to Floyd Lee on Allotment 6082 (Fernandez Company) would be affected. The new owner would control the use of these AUMs.

Land Uses

The transfer of 160 acres of surface out of BLM management under the Proposed Action and Partial Exchange Alternative 2 would mean that this small parcel, bordered by private surface, would not necessitate management by the BLM. Such parcels can be difficult to manage, especially when bordered by private activity such as coal mining. No special resource values exist on this surface.

CHAPTER 6

ADMINISTRATIVE ACTIONS REQUIRED FOR IMPLEMENTATION

Chapter 1 discusses the actions required during the amendment process, including the BLM's coal program requirements for the three suitability analyses (43 CFR 3400) and its lands program requirements that an exchange be in the public interest (43 CFR 2200). Once these criteria are satisfied, the planning amendment may be approved. However, other administrative actions are required before actual implementation, such as compliance with the Historic Preservation Act.

EXCHANGE

If the amendment is approved to make BLM coal available for exchange through the Proposed Action or one of the Partial Exchange Alternatives, and to transfer out of federal ownership 160 acres of surface estate in the Proposed Action, the primary steps to be completed to implement a decision include:

1. Class III cultural resources inventory and compliance with the Historic Preservation Act;
2. Final negotiation of the exact acreage, tonnage, and terms of an exchange of coal and transfer of surface ownership;
3. Issuance of a Notice of Realty Action in the Federal Register and resolution of any protests;
4. Issuance of a patent to the Santa Fe Pacific Railroad Co. for the BLM's coal and surface interests; and
5. Submission of evidence of title to Santa Fe Pacific's coal and a warranty deed of conveyance to the United States.

COAL DEVELOPMENT

If the decision is made to amend the Chaco MFP minerals decision (by finding all or portions of the Santa Fe Pacific coal not now included in that decision suitable for further consideration for leasing), the following steps would be followed to make the Navajo Ranch acreage and Divide West acreage coal available for development. (This assumes that the Santa Fe Pacific coal is actually transferred to BLM ownership.)

1. The approximately 5,150 acres of Santa Fe Pacific coal, after transfer to BLM ownership, would be available for consideration in the second round of leasing consideration in the San Juan River Coal Region;
2. The area would be delineated into a tract;
3. The tract would undergo tract-specific analysis and ranking by the Regional Coal Team;

4. The tract would be included in environmental analysis in the second round environmental impact statement;
5. The tract would be available for competitive leasing;
6. The tract could undergo leasing and development;
7. The tract would be reclaimed and returned to original use; or
8. If the coal is not leased, it would remain undeveloped.

For the approximately 7,150 acres of Santa Fe Pacific coal already found suitable in Chaco MFP Minerals Decision M-1.1, the following would be the steps involved if the exchange actually occurred.

1. The acreage would continue to be included in the San Juan River Regional Coal Environmental Impact Statement. (It is already included, because the "worst case" analysis in the EIS covers the development of not only federal coal, but concurrent impacts of development of privately owned coal contained within federal tract boundaries.);
2. If approved for lease, the newly acquired coal could be made available for lease;
3. The coal could be leased as part of a competitive tract;
4. The acreage could be mined;
5. The area would be reclaimed if mined;
6. The area would be returned to its original use; or
7. If coal is not leased, it would remain undeveloped.

For development of the coal that would be placed under BLM ownership and administration, federal and state laws, regulations, and requirements would apply. For development of the coal and surface interest that would go from BLM control to Santa Fe Pacific Railroad Co. ownership, state laws, regulations, and requirements would apply. The State of New Mexico's regulations and requirements (Rule 80-1) are identical for the most part to the regulatory procedures required in 30 CFR Chapter VII (Office of Surface Mining and Reclamation). Resource components that would not be provided the same amount of protection under state laws, regulations, and requirements include cultural resources, threatened and endangered plants, and paleontological resources. The identification of these differences and a discussion of them is located in Chapter 5.

CHAPTER 7

COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

COORDINATION

The following contacts have been made with other government agencies and the public concerning the proposed amendment.

1. A Federal Register notice announcing the initiation of the amendment process was published in Vol. 47, No. 228 (Friday, November 26, 1982). Issues and concerns were solicited.
2. A news release was sent to local newspapers in November of 1982, asking interested parties to identify issues that should be addressed.
3. On December 6, 1982, a letter was sent to nine governmental agencies and Indian tribes asking them to identify issues and concerns. These agencies and tribes may be concerned because they have land use regulatory authority in the vicinity of the Proposed Action.
4. At the April 27, 1983, public meeting of the San Juan River Regional Coal Team (RCT), the need for the amendment was presented and comments were received.

Federal Agencies

The Office of Surface Mining has requested that emphasis be given to the determination of the differences in geologic hazards, overburden characteristics, and reclamation potential that might exist in those areas where the BLM and Santa Fe Pacific coal proposed for exchange is located.

State Agencies

The State Commissioner of Public Lands expressed concern that the BLM address the following issues and impacts:

1. The management of public resources on checkerboard lands should include adjacent lands and the impacts that might occur to these lands.
2. The analysis of environmental and economic impacts resulting from an exchange should take into consideration impacts to the state lands located adjacent to the federal and private coal resources.
3. Identification and analysis should be made of any potential socioeconomic impacts that could occur to the communities of Grants and Milan from coal development.
4. Potential impacts occurring from the Navajo Tribe's suit claiming ownership to much of the surface and mineral estate of northwest New Mexico should be identified and analyzed.

The State Energy and Minerals Department (Resources and Development Division) has analyzed the Proposed Action. An excerpt of their analysis of the advantages and disadvantages of the exchange is contained in Appendix 10.

The State Historic Preservation Officer (SHPO) has indicated that an intensive archaeological survey should be conducted on all lands that would pass from federal jurisdiction. The SHPO's recommendation is based on compliance with Section 110(2) of the National Historic Preservation Act of 1966. This section of the act provides that National Register eligible properties not inadvertently be transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly. SHPO has agreed in the principle that the state has the authority to enforce mitigation prior to mining. Therefore, mitigation is not an issue in the exchange unless sites requiring preservation in place are found.

CONSISTENCY WITH OTHER LOCAL POLICIES, PLANS, AND PROGRAMS

None of the federal agencies, state agencies, or Indian tribes notified of this planning amendment have identified any incompatibilities with their policies, plans or programs for lands in this area.

PUBLIC COMMENT

Statements have been made on the proposed exchange by the general public at the April 27th, 1983 Regional Coal Team meeting. These statements range from support of the exchange by a variety of people, groups, state representatives and city government, to opposition by coal companies who question the legality of a coal exchange with a railroad. The following statements have been given in support of the exchange.

1. Placing larger tracts under BLM ownership and jurisdiction would make them more manageable units.
2. Few land use problems resulting from coal development have been identified in this part of the San Juan Basin.
3. The coal developed in this area (Mesa Verde age) is of superior quality, and will be served by the first segment of the Star Lake Railroad Company's proposed Star Lake Railroad.
4. The mining of federal, state, and private coal in a checkerboard pattern has been proven to be a wasteful way to mine coal. The mining of large tracts under single coal ownership is easier, and more coal is produced at lower cost. This could result in lower prices to consumers.
5. Reclamation operations would be easier to implement on large, single-ownership tracts.
6. The existence of contiguous federally owned or controlled coal would allow for the development of larger logical mining units, thus enhancing the value of the tracts offered for lease sale.
7. Coal development on these tracts would occur in the Grants-Milan area, which has high unemployment and economic problems due to the closure of uranium mines in the area.

8. This exchange would be in the public interest, and would set a precedent for blocking up other federal coal tracts. The primary considerations would be to select less environmentally sensitive areas, areas where the coal ownership can be blocked up, and areas where more favorable transportation opportunities exist. Utilizing these factors, additional coal exchanges should be considered to block up coal resources away from the Chaco Culture National Historical Park, Chacoan outliers, and nearby badlands.

The following statements have been given in opposition to the exchange.

1. The exchange would be contrary to the congressional intent of Section 2(c) of the Mineral Leasing Act of 1920 prohibiting the leasing of federal coal to railroads. The commodities clause of this act declares it unlawful for the railroad to transport any commodity which it has manufactured, mined, or produced, or a commodity in which it has a direct or indirect interest [49 U.S.C. Section 10746, formerly 49 U.S.C. Section 1(8)].
2. SF Coal Corporation would have a significant and unfair competitive advantage over other producers. They would mine coal without having to carry lease maintenance ("sunk") costs, make 12 1/2 percent royalty payments, or give fair market value bonus bids.
3. SF Coal Corporation would have an unfair advantage in lower production costs (freight rates) than would other coal producers shipping coal on the Star Lake Railroad.
4. The BLM should postpone the competitive coal lease sale to allow time to adequately study the exchange proposal, and to consider coal exchanges as an alternate and preferable way to develop coal in the San Juan Basin.

DOCUMENT RECIPIENTS

This section will be included in the final amendment.

CHAPTER 8

LIST OF PREPARERS

<u>Report Writers/Reviewers</u>			
Name	Assignment	Education	Current Position
Elizabeth Hummer	Chapters 3, 5, 6, 7, 8	BS Wildlife Science	Planning and Environmental Specialist
Kent Hamilton	Social and Economic Factors	BS Agricultural Economics	Economist
Peggy Gaudy	Cultural Resources	BS Anthropology MS Anthropology	Archaeologist
Victor Grizzle	Surface Owner Consultation	BS Wildlife Science	Realty Specialist
Lee Larson	Chapters 4 and 5	BS Forestry/ Recreation	Supervisory Planning and Environmental Coordinator
Pauline McCauley	American Indian Concerns and Surface Owner Consultation	Vocational School Admin/Steno	Range Technician
Jim Ramakka	Threatened and Endangered Species	BS Wildlife Science	Wildlife Biologist
Dana Shuford	Chapters 1, 2, 3, and 5	BS Wildlife Biology/ Range Management	Natural Resource Specialist
Betty Sladek	Team Leader, Planning Coordination and Review	BS Forestry MS Land Use Planning	Planning Coordinator
Sarah Spurrier	Editing	BA Psychology	Writer/Editor
Mary Zuschlag	Environmental Coordination and Review	BS Natural Resource Conservation	Environmental Coordinator

Support Personnel

Name	Experience (BLM)	Name	Experience (BLM)
Myrna Finke	3 yrs. Cartographic Aid	Penelope A. Mahon	3 yrs. Supervisory Editorial Assistant
		Irene Rivera	1 yr. Clerk-Typist

APPENDIX 1A

LANDS DECISION RESULTING FROM THIS WPT AGREEMENT

DECISION

Make approximately 7,500 acres of Federal (BLM) coal available for exchange for approximately 12,500 acres of private (Santa Fe Pacific) coal. Any coal exchange contemplated under this decision will be done on the basis of equal coal values. Also, this decision will leave up to 150 acres of BLM surface available for transfer to private ownership as part of the coal exchange.

APPENDICES

REASON

This coal exchange would allow for a more logical and economical development of both private and Federal coal resources. Offering solid blocks of Federal coal would make the tracts more attractive to industry, creating more interest and competition in the bidding. The transfer of 150 acres of Federal surface as part of this exchange would eliminate a split-estate situation and simplify the BLM's management responsibility.

APPENDIX 1A

LANDS DECISION RESULTING FROM THIS MFP AMENDMENT

DECISION

Make approximately 7,500 acres of federal (BLM) coal available for exchange for approximately 12,300 acres of private (Santa Fe Pacific) coal. Any coal exchange consummated under this decision will be done on the basis of equal coal values. Also, this decision will make up to 160 acres of BLM surface available for transfer to private ownership as part of the coal exchange.

REASON

This coal exchange would allow for a more logical and economical development of both private and federal coal resources. Offering solid blocks of federal coal would make the tracts more attractive to industry, creating more interest and competition in the bidding. The transfer of 160 acres of federal surface as part of this exchange would eliminate a split-estate situation and simplify the BLM's management responsibility.

APPENDIX 1B

CHACO MANAGEMENT FRAMEWORK PLAN (MFP) MINERALS DECISION M-1.1

DECISION:

Modify Step 2 Multiple-Use Recommendation to read as follows:

1. Protect the legal and physical availability of coal resources in the Known Recoverable Coal Resource Areas except where critical resource values have been identified within this planning document as needing special consideration and protection.

Further consider for coal leasing all areas within the following categories.

Category A—Likely underground mining areas with no special Multiple-Use considerations.

Category B— Likely surface mining areas with no special Multiple-Use considerations.

Category C—Likely underground mining areas with special inventory and mitigation stipulations for paleontological, archaeological, recreational (scenic) and wildlife values.

Category D—Likely surface mining areas with special inventory and mitigation stipulations for paleontological, archaeological, recreational (scenic) and wildlife values.

REASON:

The Multiple-Use Recommendation was modified to reflect the addition of three new categories. The Decision Overlays have been adjusted to reflect these new categories, to correct some mapping inconsistencies, and to show final Decisions in other resources as they relate to coal.

These areas contain high to moderate potential coal below the 250 foot level. At this time, no tracts have been deleted.

These areas contain high potential surface mineable coal. No coal tracts were deleted at this time as a result of the consultation process. All qualified surface owners must be contacted for their consent. They have the right to have areas dropped from further consideration up to just prior to lease sale, with the exception of areas identified within existing Preference Right Lease Applications.

These areas are similar to Category A and have been delineated for the same reason. In addition, these areas contain valuable resources that need to be considered and protected through special site specific mitigating measures and stipulations. They are areas of high interest and concern and will be managed for such. The areas within this category are specifically discussed within their Step 3 Decision.

These areas are similar to category B and have been delineated for the same reason. In addition these areas contain other valuable resources that need to be considered or salvaged through special site specific mitigating measures and

APPENDIX 1B(Cont'd)

	<p>stipulations. They are areas of high interest and concern and will be managed for such. The areas within this category are specifically discussed within their own Step 3 Decision.</p>
<p>Category E—Underground mining only with no surface presence or subsidence.</p>	<p>These are areas of high to moderate underground coal potential with extremely critical surface resources that are of such a nature that surface occupancy or subsidence would destroy or severely distract from the purpose or intent of that resource decision. The areas within this category are specifically discussed within their own Step 3 Decision. This decision is conducive to protection of critical wildlife, recreational, paleontological, archaeological, and wilderness values.</p>
<p>Category F—Underground mining only, with surface occupancy being allowed consistent with ACEC management.</p>	<p>These areas have high to moderate coal potential but due to critical surface resources mining will be restricted to underground methods. Strip mining would not be compatible with protection of surface resources. However, it is possible to allow surface occupancy of underground facilities with appropriate stipulations conducive to ACEC management. Critical resources such as paleontological, archaeological, and visual values will be enhanced and are specifically discussed within their own resource Step 3 Decisions.</p>
<p>Category G—Overlap of Known Geologic Structures (KGSs) with medium to high potential coal resources. Carry forward for further consideration for leasing, but postpone coal leasing in producing oil and gas fields until the U.S. Geological Survey has determined that coal development will not interfere with the economic recovery of oil and gas.</p>	<p>This Category was added in Step 3. The intent of this Decision is to maximize production of energy resources and not develop one resource to the detriment of another. The quantities of coal available for potential new leasing make it unnecessary to create new conflicts between coal and oil and gas production within the Planning Unit. Boundaries of Known Geologic Structures, provided by the USGS, were used to define producing oil and gas areas. It will be possible to lift the constraint whenever the USGS determines that all or portions of a KGS are no longer required for oil and gas operations. Tract delineation will be the first opportunity for USGS to make these determinations. Following tract delineation, new oil and gas operations occurring within a tract will be treated as a resource conflict during site-specific analysis and tract ranking. This procedure will be worked out between BLM and the USGS under departmental guidelines for avoidance or mitigation of</p>

APPENDIX 1B(Cont'd)

oil and gas and coal development conflicts. (This is consistent with Minerals Decision M-2.1).

Category H—Overlap of Preference Right Lease Application (PRLA) with an Area of Critical Environmental Concern (ACEC). Mining allowed, but surface resources warrant as much consideration, consistent with the intent of the ACEC, as is possible.

This Category was added in Step 3, and applies only to the ACEC area in T. 24 N., R. 12-13 W., that lies between the Bisti and De-na-zin WSAs. It reflects the fact that the economic depth of strip mining operations may be greater than the 250 feet used as the break-off point between underground and surface mining in this plan. If the PRLA Applicant chooses to do strip mining, close coordination with BLM is encouraged, so that impacts to the ACEC can be reduced.

Category I—Overlap of Preference Right Lease Application and Competitive Lease Application with the Navajo Indian Irrigation Project (NIIP). Consultation between BLM, NIIP and the Applicant(s) should determine suitability for mining.

This Category was added in Step 3, and applies only to the area included in T. 24 N., R. 13 W., Sections 19, 20, 21, 28, 29, and 30. The PRLA and Competitive Lease Application overlaps an area included in the NIIP, but which is not currently developed for intensive agriculture, nor are immediate plans being made for its development. It is possible that NIIP would consent to the coal resource being mined prior to development for intensive agriculture.

2. Drop from further consideration for coal leasing:

Category J—These areas are not carried forward for further coal lease consideration because of Multiple Use Considerations.

These are areas that are in serious conflict with coal development or that we are mandated by law to protect in order to enhance recreational, scientific, wildlife or educational use of these resources. These areas contain lands that will be utilized for agricultural, wilderness study, archaeological or wildlife purposes. They are also lands, near Torreon (centered in T. 18 N., R. 4 W.) that contain numerous Navajo occupants in relatively small geographic area and which contain somewhat marginal strippable coal. While the area is not required to be dropped from further consideration for leasing the consensus of the response from consultation with these families was not in favor of coal mining. In light of the relatively heavy population density in this area, as compared to the scattered population density over the rest of the strippable zone, and the relatively low value of the coal in the Torreon area, it is appropriate to drop this area at this time.

APPENDIX 1B(Concluded)

Changes made between various Step 2 Multiple Use Recommendations and Step 3 Decisions are reflected in the discussions associated with the Decisions for those resources.

3. In areas that are carried forward to the lease stage, and where the surface is either occupied or under grazing lease, it is District Policy that the following relocation provisions be followed as closely as possible:

During the public participation efforts associated with this planning document, much concern was expressed about the issue of relocation associated with coal mining. Although the responsibility for arranging the relocations falls on the leaseholder, the District wants to encourage cooperation between the parties involved.

a. Relocate residences and resource use within the same Chapter boundaries.

b. The relocation details will be worked out with occupant/user and mining company participation.

c. Relocations will be staggered so that they don't all occur at the same time in the same vicinity.

d. Families will be relocated as a unit and not be split up.

e. The new location will have sufficient water and forage to accommodate the occupants'/users' displaced flocks or herds.

Note: The 1981 Chaco MFP Decision M-1.1 is documented on a set of map overlays available at the Farmington Resource Area, or in the map packet at the back of the Coal Development Planning pamphlet sent to interested parties in September, 1981. Extra copies of this pamphlet are available from the BLM Albuquerque District Office.

APPENDIX 2

UNSUITABILITY CRITERIA

Subpart 3461—Federal Lands Review—Unsuitability for Mining

§ 3461.0-3 Authority.

(a) These regulations are issued under the authority of the statutes listed in § 3400.0-3 of this title.

(b) These regulations primarily implement:

(1) The general unsuitability criteria in section 522(a) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272(a));

(2) The Federal lands review in section 522(b) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272(b)); and

(3) The prohibitions against mining certain lands in section 522(e) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272(e)).

§ 3461.0-6 Policy.

The Department shall carry out the review of Federal lands under section 522(b) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272(b)) principally through land use planning assessments by the surface management agency regarding the unsuitability of Federal lands for all or certain stipulated methods of coal mining.

§ 3461.0-7 Scope.

Each criterion in § 3461.1 of this title uses the phrase "shall be considered unsuitable" as shorthand for "shall be considered unsuitable for all or certain stipulated methods of coal mining involving surface coal mining operations, as defined in § 3400.0-5(mm) of this title.

§ 3461.1 Criteria for assessing lands unsuitable for all or certain stipulated methods of coal mining.

(a)(1) *Criterion Number 1.* All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

(2) *Exceptions.* (i) A lease may be issued within the boundaries of any National Forest if the Secretary finds no significant recreational, timber, economic or other values which may be incompatible with the lease; and (A) surface operations and impacts are incident to an underground coal mine, or

(B) where the Secretary of Agriculture determines, with respect to lands which do not have significant forest cover within those National Forests west of the 100th meridian, that surface mining may be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act of 1977. (ii) A lease may be issued within the Custer National Forest with the consent of the Department of Agriculture as long as no surface coal mining operations are permitted.

(3) *Exemptions.* The application of this criterion to lands within the listed land systems and categories is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977. The application of the portion of this criterion applying to land proposed for inclusion in the listed systems does not apply to lands to which substantial legal and financial commitments were made prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(b)(1) *Criterion Number 2.* Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes. Federally owned surface shall be considered unsuitable.

(2) *Exceptions.* A lease may be issued, and mining operations approved, in such areas if the surface management agency determines that:

(i) All or certain types of coal development (e.g., underground mining)

will not interfere with the purpose of the right-of-way or easement; or

(ii) The right-of-way or easement was granted for mining purposes; or

(iii) The right-of-way or easement was issued for a purpose for which it is not being used; or

(iv) The parties involved in the right-of-way or easement agree, in writing, to leasing; or

(v) It is impractical to exclude such areas due to the location of coal and method of mining and such areas or uses can be protected through appropriate stipulations.

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(c)(1) *Criterion Number 3.* Federal lands affected by section 522(e) (4) and

(5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

(2) *Exceptions.* A lease may be issued for lands:

(i) Used as mine access roads or haulage roads that join the right-of-way for a public road;

(ii) For which the Office of Surface Mining Reclamation and Enforcement has issued a permit to have public roads relocated;

(iii) If, after public notice and opportunity for public hearing in the locality, a written finding is made by the authorized officer that the interests of the public and the landowners affected by mining within 100 feet of a public road will be protected.

(3) *Exemptions.* The application of this criterion is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977.

(d)(1) *Criterion Number 4.* Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

(2) *Exemption.* The application of this criterion to lands for which the Bureau of Land Management is the surface management agency and lands in designated wilderness areas in National Forests is subject to valid existing rights.

(e)(1) *Criterion Number 5.* Scenic Federal lands designated by visual resource management analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

APPENDIX 2 (Cont'd)

(2) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977, on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(f)(1) *Criterion Number 6.* Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

(2) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(g)(1) *Criterion Number 7.* All districts, sites, buildings, structures, and objects of historic, architectural, archeological, or cultural significance on Federal lands which are included in or eligible for inclusion in the National Register of Historic Places, and an appropriate buffer zone around the outside boundary of the designated property (to protect the inherent values of the property that make it eligible for listing in the National Register) as determined by the surface management agency, in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Office shall be considered unsuitable.

(2) *Exemptions.* All or certain stipulated methods of coal mining may be allowed if the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and State Historic Preservation Office that the direct and indirect effects of mining, as stipulated, on a property in or eligible for the National Register of Historic Places will not result in significant adverse impacts to the property.

(3) *Exemptions.* The application of this criterion to a property listed in the National Register is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977. The application of the criterion to buffer zones and properties eligible for the National Register does not apply to lands to which the operator made substantial legal and financial

commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(h)(1) *Criterion Number 8.* Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

(2) *Exemptions.* A lease may be issued and mining operation approved in an area or site if the surface management agency determines that:

(i) With the concurrence of the state, the area or site is of regional or local significance only;

(ii) The use of appropriate stipulated mining technology will result in no significant adverse impact to the area or site; or

(iii) The mining of the coal resource under appropriate stipulations will enhance information recovery (e.g., paleontological sites).

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(i)(1) *Criterion Number 9.* Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

(2) *Exception.* A lease may be issued and mining operations approved if, after consultation with the Fish and Wildlife Service, the Service determines that the proposed activity is not likely to jeopardize the continued existence of the listed species and/or its critical habitat.

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(j)(1) *Criterion Number 10.* Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

(2) *Exception.* A lease may be issued and mining operations approved if, after consultation with the state, the surface management agency determines that the species will not be adversely affected by all or certain stipulated methods of coal mining

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(k)(1) *Criterion Number 11.* A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

(2) *Exemptions.* A lease may be issued if:

(i) It can be conditioned in such a way, either in manner or period of operation, that eagles will not be disturbed during breeding season; or

(ii) The surface management agency, with the concurrence of the Fish and Wildlife Service, determines that the golden eagle nest(s) will be moved.

(iii) Buffer zones may be decreased if the surface management agency determines that the active eagle nests will not be adversely affected.

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(l)(1) *Criterion Number 12.* Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

(2) *Exception.* A lease may be issued if the surface management agency determines that all or certain stipulated methods of coal mining can be conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed.

(3) *Exemptions.* This criterion does not apply to lands to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(m)(1) *Criterion Number 13.* Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

(2) *Exception.* A lease may be issued where the surface management agency, after consultation with the Fish and

Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the falcon habitat during the periods when such habitat is used by the falcons.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(n)(1) *Criterion Number 14.* Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

(2) *Exception.* A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the migratory bird habitat during the periods when such habitat is used by the species.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(o)(1) *Criterion Number 15.* Federal lands which the surface management agency and the state jointly agree are fish and wildlife habitat for resident species of high interest to the state and which are essential for maintaining these priority wildlife species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

- (i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse, and prairie chicken;
- (ii) Winter ranges most critical for deer, antelope, and elk; and
- (iii) Migration corridors for elk.

A lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

(2) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(p)(1) *Criterion Number 16.* Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without

substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

(2) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(q)(1) *Criterion Number 17.* Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

(2) *Exception.* A lease may be issued where the surface management agency in consultation with the municipality (incorporated entity) or the responsible governmental unit determines, as a result of studies, that all or certain stipulated methods of coal mining will not adversely affect the watershed to any significant degree.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(r)(1) *Criterion Number 18.* Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands $\frac{1}{4}$ mile from the outer edge of the far banks of the water, shall be unsuitable.

(2) *Exception.* The buffer zone may be eliminated or reduced in size where the surface management agency determines that it is not necessary to protect the National Resource Waters.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(s)(1) *Criterion Number 19.* Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in § 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published, and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would

supply alluvial valley floors, the land shall be considered unsuitable.

(2) *Exemptions.* This criterion does not apply to surface coal mining operations which produced coal in commercial quantities in the year preceding August 3, 1977, or which had obtained a permit to conduct surface coal mining operations.

(t)(1) *Criterion Number 20.* Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

(2) *Exceptions.* A lease may be issued when:

(i) Such criterion is adopted by the Secretary less than 6 months prior to the publication of the draft comprehensive land use plan or land use analysis, plan, or supplement to a comprehensive land use plan, for the area in which such land is included; or

(ii) After consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not adversely affect the value which the criterion would protect.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

APPENDIX 3

BLM COAL FOR THE PROPOSED ACTION

LEE RANCH MIDDLE TRACT

Township 15 North, Range 7 West	Acres	Ownership	
		Minerals	Surface
Section 4: Lot 1, SE1/4NE1/4, SE1/4	239.79	BLM	Fernandez Co.
Section 8: S1/2S1/2	160.00	BLM	Fernandez Co.
Section 10: Lots 1-8, E1/2W1/2, E1/2	621.68	BLM	Fernandez Co.
Section 18: Lots 1-4, E1/2W1/2, E1/2	637.76	BLM	Fernandez Co.
Section 20: All	640.00	BLM	Fernandez Co.
Section 22: Lots 1&5, E1/2NW1/4, NE1/4	275.01	BLM	Fernandez Co.
Section 28: N1/2, N1/2SW1/4	400.00	BLM	Fernandez Co.
Section 30: Lots 1-4, E1/2W1/2, E1/2	638.08	BLM	Fernandez Co.
Subtotal	3,612.32		

Township 16 North, Range 7 West	Acres	Ownership	
		Minerals	Surface
Section 26: Lots 4&8, W1/2NE1/4, NW1/4, NW1/4SW1/4	339.67	BLM	Fernandez Co.
Section 28: SE1/4	160.00	BLM	Fernandez Co.
Section 34: Lots 1-8, E1/2W1/2, E1/2	632.40	BLM	Fernandez Co.
Subtotal	1,132.07		

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 14: SE1/4	160.00	BLM	BLM
Section 22: S1/2, S1/2NE1/4	400.00	BLM	Fernandez Co.
Section 24: All	640.00	BLM	Fernandez Co.
Section 26: All	640.00	BLM	Fernandez Co.
Section 28: All	640.00	BLM	Fernandez Co.
Section 34: N1/2	320.00	BLM	Fernandez Co.
Subtotal	2,800.00		

TOTAL 7,544.39

APPENDIX 4

SANTA FE PACIFIC COAL FOR THE PROPOSED ACTION

LEE RANCH EAST TRACT

Township 15 North, Range 6 West	Acres	Ownership	
		Minerals	Surface
Section 19: Lots 1-4	114.38	Santa Fe	Michaels
Section 29: Lots 1-8, W1/2E1/2, W1/2	694.40	Santa Fe	Michaels
Subtotal	808.78		

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 5: Lot 4, SW1/4NW1/4, S1/2	400.67	Santa Fe	Fernandez Co.
Section 7: Lot 1, E1/2NW1/4, NE1/4, N1/2SE1/4, SE1/4SE1/4	400.25	Santa Fe	Fernandez Co.
Section 17: All	640.00	Santa Fe	Fernandez Co.
Section 21: S1/2S1/2	160.00	Santa Fe	Fernandez Co.
Subtotal	1,600.92		

Township 16 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 21: All	640.00	Santa Fe	Fernandez Co.
Section 29: All	640.00	Santa Fe	Fernandez Co.
Section 31: NE1/4, SE1/4, SE1/4NW1/4, E1/2SW1/4	440.00	Santa Fe	Fernandez Co.
Subtotal	1,720.00		

DIVIDE TRACT

Township 16 North, Range 9 West	Acres	Ownership	
		Minerals	Surface
Section 19: Lots 1-4, E1/2W1/2, S1/2SE1/4	380.40	Santa Fe	Fernandez Co.
Section 29: W1/2, SE1/4, S1/2NE1/4	560.00	Santa Fe	Fernandez Co.
Section 33: N1/2N1/2	160.00	Santa Fe	Fernandez Co.
Subtotal	1,100.40		

APPENDIX 4 (Concluded)

DIVIDE TRACT

Township 15 North, Range 10 West	Acres	Ownership	
		Minerals	Surface
Section 3: Lots 1-4, S1/2N1/2	321.00	Santa Fe	B. Albers
Subtotal	321.00		

Township 16 North, Range 10 West	Acres	Ownership	
		Minerals	Surface
Section 25: All	640.00	Santa Fe	B. Albers
Section 33: S1/2	320.00	Santa Fe	B. Albers
Section 35: All	640.00	Santa Fe	B. Albers
Subtotal	1,600.00		

DIVIDE WEST ACREAGE

Township 16 North, Range 10 West	Acres	Ownership	
		Minerals	Surface
Section 19: NE1/4	160.00	Santa Fe	F. Begay
Section 19: Lots 1 and 2, E1/2NW1/4	175.15	Santa Fe	D. Chopo
Section 19: Lots 3 and 4, E1/2SW1/4	174.65	Santa Fe	D. Sloan
Section 19: SE1/4	160.00	Santa Fe	G. Chopo
Subtotal	669.80		

NAVAJO RANCH ACREAGE

Township 18 North, Range 11 West	Acres	Ownership	
		Minerals	Surface
Section 28: All	640.00	Santa Fe	Navajo Tribe ^{a/}
Section 29: All	640.00	Santa Fe	Navajo Tribe ^{a/}
Section 30: Lots 1-4, E1/2W1/2, E1/2	638.40	Santa Fe	Navajo Tribe ^{a/}
Section 31: Lots 1-4, E1/2W1/2, E1/2	638.40	Santa Fe	Navajo Tribe ^{a/}
Section 33: All	640.00	Santa Fe	Navajo Tribe ^{a/}
Section 34: All	640.00	Santa Fe	Navajo Tribe ^{a/}
Section 35: All	640.00	Santa Fe	Navajo Tribe ^{a/}
Subtotal	4,476.80		

TOTAL 12,297.70

Note: ^{a/} Title is held in fee simple.

APPENDIX 5

BLM COAL FOR PARTIAL EXCHANGE ALTERNATIVE 1

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 14: SE1/4	160.00	BLM	BLM
Section 24: All	640.00	BLM	Fernandez Co.
Section 26: All	640.00	BLM	Fernandez Co.
Section 28: All	640.00	BLM	Fernandez Co.
Section 34: N1/2	320.00	BLM	Fernandez Co.
TOTAL	2,400.00		

APPENDIX 6

SANTA FE PACIFIC COAL FOR PARTIAL EXCHANGE ALTERNATIVE 1

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 5: Lot 4, SW1/4NW1/4, S1/2	400.67	Santa Fe	Fernandez Co.
Section 7: Lot 1, E1/2NW1/4, NE1/4, N1/2SE1/4, SE1/4SE1/4	400.25	Santa Fe	Fernandez Co.
Section 17: All	640.00	Santa Fe	Fernandez Co.
Section 21: S1/2S1/2	160.00	Santa Fe	Fernandez Co.
Subtotal	1,600.92		

Township 16 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 21: All	640.00	Santa Fe	Fernandez Co.
Section 29: All	640.00	Santa Fe	Fernandez Co.
Section 31: NE1/4, SE1/4, SE1/4NW1/4, E1/2SW1/4	440.00	Santa Fe	Fernandez Co.
Subtotal	1,720.00		
TOTAL	3,320.92		

APPENDIX 7

BLM COAL FOR PARTIAL EXCHANGE ALTERNATIVE 2

LEE RANCH MIDDLE TRACT

Township 15 North, Range 7 West	Acres	Ownership	
		Minerals	Surface
Section 8: S1/2S1/2	160	BLM	Fernandez Co.
Section 18: Lots 1-4, E1/2W1/2, E1/2	637.76	BLM	Fernandez Co.
Section 20: All	640	BLM	Fernandez Co.
Section 30: Lots 1-4, E1/2W1/2, E1/2	638.08	BLM	Fernandez Co.
Subtotal	2,075.84		

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 14: SE1/4	160	BLM	BLM
Section 24: All	640	BLM	Fernandez Co.
Section 26: All	640	BLM	Fernandez Co.
Section 28: All	640	BLM	Fernandez Co.
Section 34: N1/2	320	BLM	Fernandez Co.
Subtotal	2,400		
TOTAL	4,475.84		

SANTA FE PACIFIC COAL FOR PARTIAL EXCHANGE ALTERNATIVE 2

LEE RANCH MIDDLE TRACT

Township 15 North, Range 7 West	Acres	Ownership	
		Minerals	Surface
Section 3: All	634.58	Santa Fe	Fernandez Co.
Section 9: All	640	Santa Fe	Fernandez Co.
Section 11: W1/2	320	Santa Fe	Fernandez Co.
Section 13: Lots 1-4, NW1/4NE1/4, NW1/4, NW1/4SW1/4	404.24	Santa Fe	Fernandez Co.
Section 14: E1/2NE1/4, E1/2SE1/4, SW1/4SE1/4, NW1/4NW1/4, S1/2NW1/4, SW1/4	480	Santa Fe	Fernandez Co.
Section 15: All	620.64	Santa Fe	Fernandez Co.
Section 21: All	640	Santa Fe	Fernandez Co.
Section 22: Lots 3, 4, 7, 8, E1/2SW1/4, SE1/4	309.52	Santa Fe	Fernandez Co.
Section 23: Lots 1, 2, N1/2NE1/4, SW1/4NE1/4, NW1/4, N1/2 SW1/4	443.19	Santa Fe	Fernandez Co.
Subtotal	4,492.17		

Township 16 North, Range 7 West	Acres	Ownership	
		Minerals	Surface
Section 23: S1/2SW1/4, SW1/4SE1/4	120	Santa Fe	Fernandez Co.
Section 27: Lots 1-8, NE1/4, NE1/4NW1/4, S1/2NW1/4, N1/2S1/2	675.64	Santa Fe	Fernandez Co.
Section 33: NE1/4, NE1/4SE1/4	200	Santa Fe	Fernandez Co.
Section 35: W1/2NW1/4, SW1/4, W1/2SE1/4	320	Santa Fe	Fernandez Co.
Subtotal	1,315.64		

LEE RANCH WEST TRACT

Township 15 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 5: Lot 4, SW1/4NW1/4, S1/2	400.67	Santa Fe	Fernandez Co.
Section 7: Lot 1, E1/2NW1/4, NE1/4, N1/2SE1/4, SE1/4SE1/4	400.25	Santa Fe	Fernandez Co.
Section 17: All	640	Santa Fe	Fernandez Co.
Section 21: S1/2S1/2	160	Santa Fe	Fernandez Co.
Subtotal	1,600.92		

Township 16 North, Range 8 West	Acres	Ownership	
		Minerals	Surface
Section 21: All	640	Santa Fe	Fernandez Co.
Section 29: All	640	Santa Fe	Fernandez Co.
Section 31: NE1/4, SE1/4, SE1/4NW1/4, E1/2SW1/4	440	Santa Fe	Fernandez Co.
Subtotal	1,720.00		

TOTAL 9,128.73

APPENDIX 9

STIPULATIONS DEVELOPED FOR UNSUITABILITY CRITERIA 2, 3, 7, AND 16

CRITERION 2

Subject

Federal lands within rights-of-way or easements or within surface leases for residential, commercial, industrial or other public purposes.

Stipulation

Rights-of-way shall be relocated, when needed, to allow coal mining operations. For those right-of-way grants which contain terms or conditions allowing the right-of-way to be modified, the right-of-way grantee shall pay all reasonable costs associated with relocation. For other right-of-way grants, the coal lessee shall pay all reasonable cost associated with the relocation.

All right-of-way provisions and processing on Indian allotted and withdrawn Federal lands administered by the BIA will be subject to 25 CFR 161.

(The Star Lake Railroad right-of-way was granted for the purpose of transporting coal. Lands within the right-of-way are unsuitable for surface coal mining operations unless the lessee receives written permission from the right-of-way grantee and concurrence from the BLM allowing surface coal mining.)

CRITERION 3

Subject

Federal lands affected by Section 522 (e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 (roads, occupied dwellings, and cemeteries).

Stipulation

The area within 100 feet of a road is unsuitable for surface coal mining unless the road is relocated as allowed by the Surface Mining Control and Reclamation Act.

Each surface owner with a patent containing a reservation of coal to the United States is entitled to protection before coal is surface mined. The protection consists of imposing on the lessee the obligation to either receive the owner's consent or to post a bond to compensate the owner for damages to crops, improvements, and forage.

Each occupied dwelling will be protected from mining by a 300-foot buffer zone unless the owner of the dwelling gives permission to mine closer.

The lessee shall conduct a detailed survey for gravesites on areas that will be disturbed by surface coal mining. The BLM shall approve the survey. Surveys for gravesites on Indian allotted and withdrawn federal lands administered by

the BIA will be approved by the BIA. The survey shall be completed before the lessee applies for a permit under the Surface Mining Control and Reclamation Act. An area 100 feet surrounding each gravesite which may be disclosed by the survey shall be considered unsuitable for surface coal mining unless the lessee lawfully relocated the gravesite(s).

CRITERION 7

Subject

Federal lands included in or eligible for inclusion in the National Register of Historic Places.

Stipulation

The standard lease form requires intensive cultural resource inventory as part of mine plan development [Section 31 (a)]. Before the lessee conducts any surface disturbance activities on the lease, he must at his expense, do a complete cultural resources survey on federal lands or lands overlying federal coal of the entire area to be disturbed using the services of a qualified professional culture resource specialist.

Following intensive cultural resource inventory, sites will be evaluated, and determinations of National Register eligibility will be made by the Office of Surface Mining in consultation with the State Historic Preservation Officer. The Office of Surface Mining, in consultation with the State Historic Preservation Officer, Bureau of Land Management, and Bureau of Indian Affairs (if BIA-administered lands are involved) will identify effects and appropriate measures to be taken for mitigation of effects on sites which have been determined eligible for the National Register.

Section 31(a) of the standard lease form is interpreted to provide for in-place preservation of sites which may be determined eligible for the National Register when such in-place preservation is determined by the regulatory authorities, in consultation with the SHPO, to constitute appropriate mitigation of adverse effect.

Surface coal mining operations on the identified sites will be allowed after the lessee carries out measures to avoid adverse effects to the sites in accordance with the plan approved by the Office of Surface Mining in consultation with the Bureau of Land Management and the State Historic Preservation Officer.

If any cultural resources are discovered during the mining, the lessee is required to halt operations until the resource has been examined.

CRITERION 16

Subject

Federal lands in riverine, coastal and special floodplains (100-year recurrence interval).

Stipulation

For leases within the 100-year recurrence interval floodplains as shown on Federal Insurance Administration flood maps, on file at the BLM Albuquerque District, the surface management agency shall review the mining plan to be submitted by the lessee and specify any specific measures needed to ensure that mining will not cause a substantial threat of loss to people or property.

EXCERPTS FROM THE STATE OF NEW MEXICO'S
ANALYSIS OF THE PROPOSED ACTION

ADVANTAGES OF THE TRADE

Consummation of the trade could have several advantages. The most significant is that the coal resources in all the tracts may be more efficiently utilized. If the trade is not made, and if the BLM leases the tracts now being offered, then the coal will continue to be held in a checkerboard pattern. In general, Santa Fe will control one-half of the checkerboard and Federal lessees will control the other half. If the holders do not jointly develop the logical mining units, substantial coal may be lost in the mining process at the lease boundaries. In addition, there will be problems in transporting coal from the mine pits to the transportation facilities, as well as other logistical problems. Reclamation will also be difficult to administer, since operators may have to cross each others reclaimed lands with transportation facilities and equipment from time to time.

Since the trade creates four large blocks of coal, three of which would be held by the Federal government and one by Santa Fe, the potential for four separate mines in the same general area is, therefore, created. Assuming that demand is sufficient, the trade could, therefore, lead to additional production from the area. There could also be increased competition in New Mexico's coal mining industry, since four logical mining units are created by the trade. However, the differences in geologic conditions between the four tracts may dictate a disparity in mining costs, which in turn may preclude the development of more than one of the tracts at the same time.

The advantages to the State would be increased revenues, provided that there is sufficient demand for New Mexico coal. Demand may be the limiting factor however, since recent studies indicate that the existing mines and the Lee Ranch Mine will be more than capable of meeting all the demand for coal from New Mexico until the 1990's. But the trade could still provide for increased revenues in later years when demand increases sufficiently to warrant the development of additional mines.

The advantage of the trade to Santa Fe is that they will hold one single block of coal if the trade is consummated. If they choose to do so, they will then be able to modify their mining plans to take maximum advantage of the geologic conditions, which in turn may lead to a reduction in mining costs. That reduction in costs could make Santa Fe more competitive with other producers in New Mexico as well as other states in the West.

Other producers will have three additional tracts to bid on in future competitive leasing rounds if the trade is made. Those tracts will then be almost all Federal coal, instead of the current checkerboard pattern. However, producers could have a competitive disadvantage compared to Santa Fe, since they would be paying royalties on all the coal mined. There are also geologic differences which can affect mining costs adversely.

The Federal Government may gain revenues from the trade, since they will then have four logical mining units consisting almost entirely of Federal coal to offer for lease. However, the additional revenues may not come until well into the future when demand has increased substantially.

DISADVANTAGES OF THE TRADE

The most significant disadvantage of the trade is that royalties to the State and the Federal Government will not be received from the coal which the Federal Government will give up in the trade. Since most of the coal which Santa Fe would acquire in the trade is part of two competitive lease tracts to be offered for sale in the near future, then the trade will preclude the State and Federal Government from receiving bonus bids and royalties on those tracts. (Bonus bids would be received at the time of the sale, and royalties would be received as the tracts are mined.) That is assuming that the tracts would be developed by whoever leases them, either as a joint venture with Santa Fe or on their own.

Another potential disadvantage of the trade is that other existing coal mines in New Mexico may find that Santa Fe will have a competitive advantage which could lead to declines in production at other mines. The mine which is most susceptible is Kaiser Steel Corporation's York Canyon Underground Mine. However, Santa Fe's competitive advantage may be more perceived than real for two different reasons. One, there are substantial quality differences in the coal from the two areas; those differences preclude Santa Fe from competing in some markets in which Kaiser should be competitive. Second, because of their geographic locations, both have competitive advantages in different areas of the Southwest. Kaiser should be strongest in markets which are to the east of New Mexico, while Santa Fe should be most competitive in areas to the west of New Mexico.

Another disadvantage is that other coal-producing companies will not have the chance to bid on the Federal coal which would be offered for lease if the trade is not made. The coal which Santa Fe proposes to acquire in the trade is located in the most attractive tracts to be offered for competitive lease in the first round of competitive leasing. They are certain to be leased if they are offered. However, there may be many difficulties in developing the tracts if the lessee is not able to reach a joint venture agreement with Santa Fe.

The disadvantage of the trade to Santa Fe is that they will lose control of several other coal properties in the area. Those properties will then be available for lease and subsequent development by competitors. If all the tracts are ultimately developed, then there could be four or five mines in the area.

CONCLUSION

The trade of at least some of the coal offered by Santa Fe for coal now held by the Federal Government appears to be in the State's best interests. State revenues should be higher if a trade is made, and the resource will be more efficiently exploited, since the mine operator(s) will control contiguous sections and will be able to mine them in the most effective manner.

However, the BLM might want to consider at this time a trade which involves less coal, in order to retain the option of collecting royalties from at least part of the coal which is now being considered for competitive leasing. The BLM should also not accept coal for which surface owner consent has not been obtained in trade for coal for which surface owner consent now exists.

Source: State of New Mexico, Energy and Minerals Department, Resources and Development Division. 1983.

GLOSSARY

BLM COAL. As defined in this amendment, the subsurface (coal) estate owned by the federal government and administered by the Bureau of Land Management.

EXCEPTIONS. Specific conditions that, if met, can reverse the unsuitability determination for an area of land to be surface mined. (Refer to "Unsuitability Criteria" below, and to Appendix 2 for examples.)

EXEMPTIONS. Specific situations that, if existing before the application of the unsuitability criteria to an area of land, can reverse the area's unsuitability determination for surface mining. (Refer to "Unsuitability Criteria" below, and to Appendix 2 for examples.)

PLANNING CRITERIA. Standards chosen for use in the land use planning amendment process. These standards guide data collection, the selection of alternatives, impact analysis, and decision-making. They help to ensure that unnecessary data collection and analyses are avoided.

SF COAL CORPORATION. The non-rail affiliate of Santa Fe Industries that has submitted mining plans for the development of the coal resources leased from Santa Fe Pacific Railroad Company and the State of New Mexico on the Lee Ranch lands.

SANTA FE PACIFIC COAL. As defined in this amendment, the subsurface (coal) estate owned by Santa Fe Pacific Railroad Company and being considered for exchange with BLM coal.

SANTA FE PACIFIC RAILROAD COMPANY. A non-rail, land-holding affiliate of Santa Fe Industries and the originator of the exchange proposal; owner of the subsurface (coal) estate proposed for exchange with BLM coal.

SUITABILITY ASSESSMENT. Refers to (1) the surface owner consultation process; (2) the analysis of multiple-use considerations that may result in land being found unacceptable for leasing because of special resource conditions; and (3) the analysis that applies the 20 unsuitability criteria, exemptions, and exceptions. All federal coal lands considered for leasing must have been found suitable under all three procedures during the land use planning process [43 CFR 3420.1-4(e)].

SURFACE OWNER CONSULTATION. A requirement of the coal unsuitability assessment conducted during land use planning (43 CFR 3420.1-4), wherein qualified surface owners whose lands overlie federal coal deposits may express a preference for or against surface mining on their lands. Lands may be found unsuitable for surface mining if a significant number of surface owners have expressed a preference against it.

TRACT. An area delineated after land use planning has found all federal coal within its boundaries to be suitable for further leasing consideration. Tracts are used as potential leasing units during environmental impact analysis.

UNSUITABILITY CRITERIA. Twenty specific standards set forth in federal coal regulations (Title 43, Code of Federal Regulations, Subpart 3461). Certain areas of federal coal can be rendered unsuitable for all or certain methods of surface coal mining if the mining would destroy or damage resources listed in the criteria. An unsuitability determination under the criteria can be reversed by application of the exceptions and exemptions to the criteria. Refer to Appendix 2 for a listing of these criteria, their exceptions and exemptions.

REFERENCES

State of New Mexico, Energy and Minerals Department, Resources and Development Division. 1983. Analysis of the Coal Exchange Proposed to the Bureau of Land Management by the Santa Fe Pacific Railroad Company. Santa Fe, N. Mex.

U.S. Department of the Interior, Bureau of Land Management. 1979. Star Lake-Bisti Regional Coal Final Environmental Statement. Albuquerque, N. Mex.

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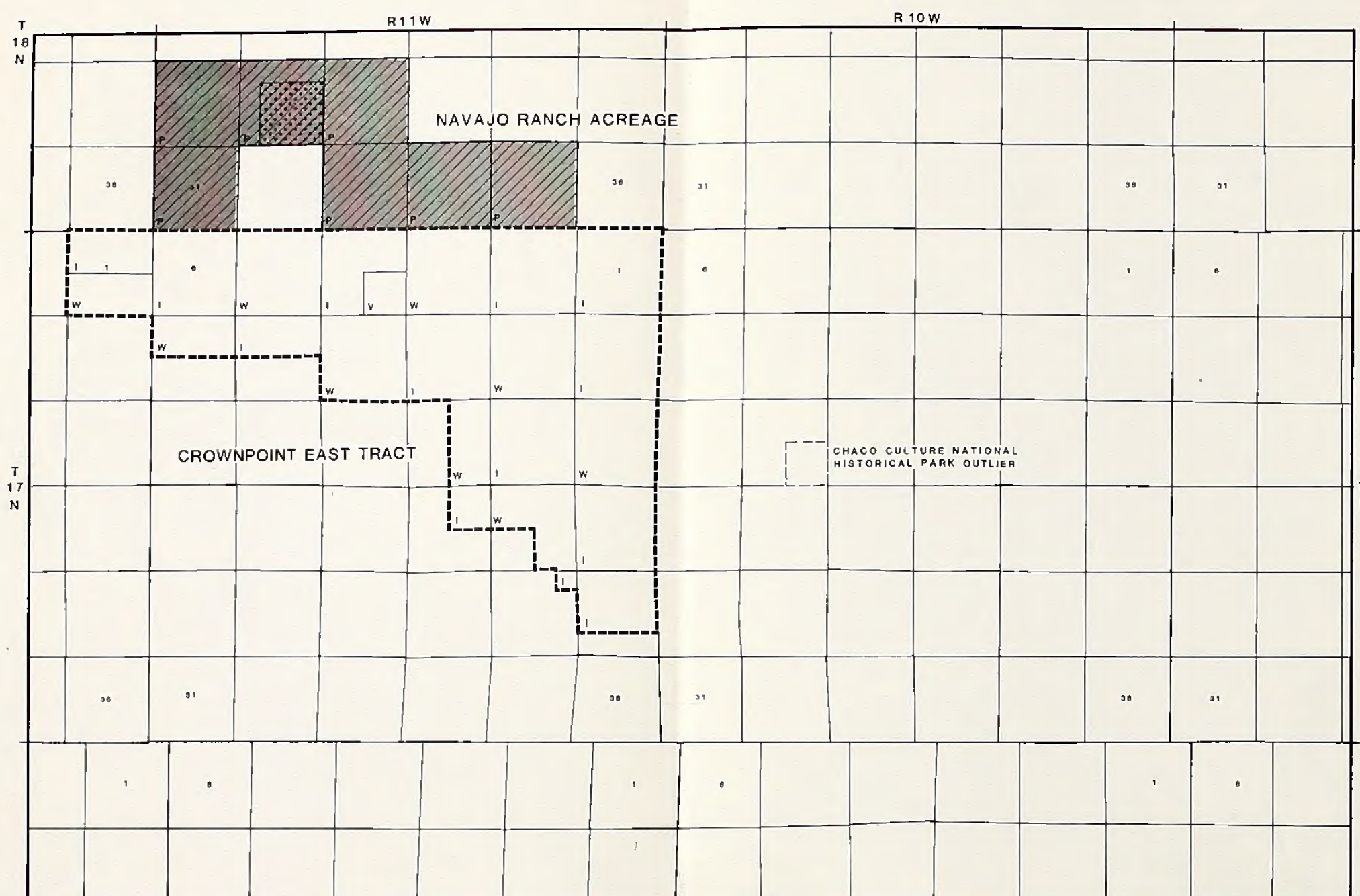
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MAP 2 SURFACE AND MINERAL ESTATE OF THE PROPOSED ACTION

LEGEND

--- COMPETITIVE TRACT BOUNDARY

PROPOSED ACTION

- SANTA FE PACIFIC COAL
- BLM COAL

SURFACE OWNERSHIP

- V - PUBLIC
- I - INDIAN
- W - INDIAN WITHDRAWAL
- P - PRIVATE
- S - STATE

MINERAL OWNERSHIP - COAL

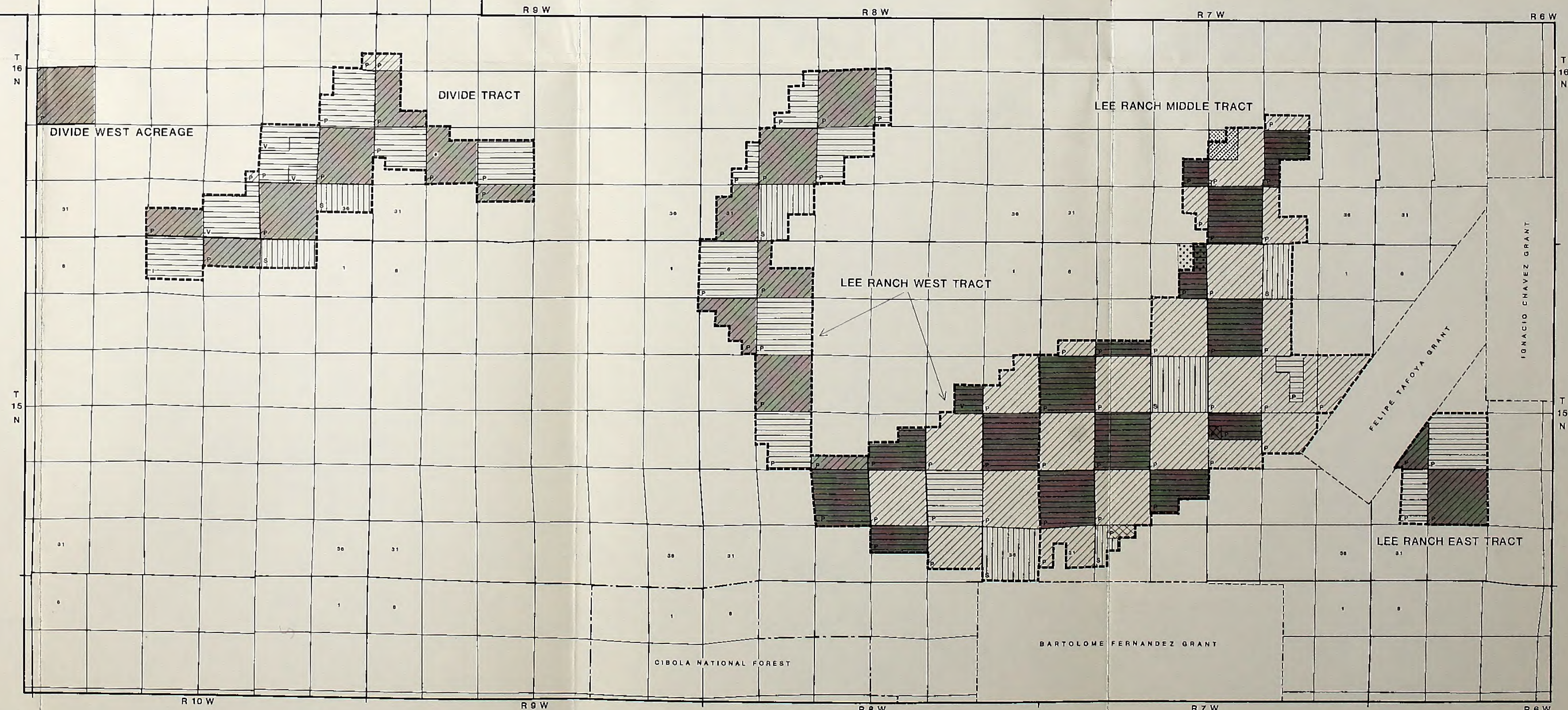
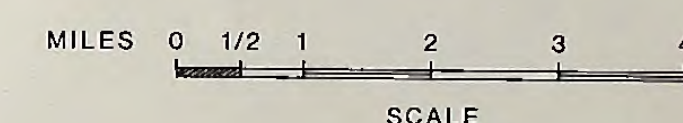
- PRIVATE - SANTA FE PACIFIC RAILROAD COMPANY
- PRIVATE - OTHER
- BUREAU OF LAND MANAGEMENT
- STATE
- INDIAN

HABITAT POTENTIALLY AFFECTED BY UNSUITABILITY CRITERIA

- FERRUGINOUS HAWK NEST AREA
- GOLDEN EAGLE NEST AREA

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